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(71) Applicant(s)

IGT-UK Limited
(Incorporated in the United Kingdom)
Margaret Street, ASHTON-UNDER-LYNE, Lancashire,
OL7 0QQ, United Kingdom

(72) Inventor(s)

Andrew Dewar Todd

(74) Agent and/or Address for Service

Wilson Gunn M'Caw
41-51 Royal Exchange, Cross Street, MANCHESTER,
M2 7BD, United Kingdom

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EP 0981119 A2 WO 96/23286 A1 US 5292127 A
US 4837728 A

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(54) Abstract Title

Games system with common display device

(57) A games system 1 includes a plurality of machines 2 linked to a common display device 20, each machine having an independently operable games feature 3 which provides an enhanced win opportunity, such as a bonus game or jackpot, that can be indicated on the common display device, which may be a separately mounted unit with an arcuate back-illuminated panel. Each machine may have a local display device 18 which is a smaller version of the common display device. When an enhanced win opportunity is provided on a particular machine, its local display device may be actuated at the same time as the common display device.

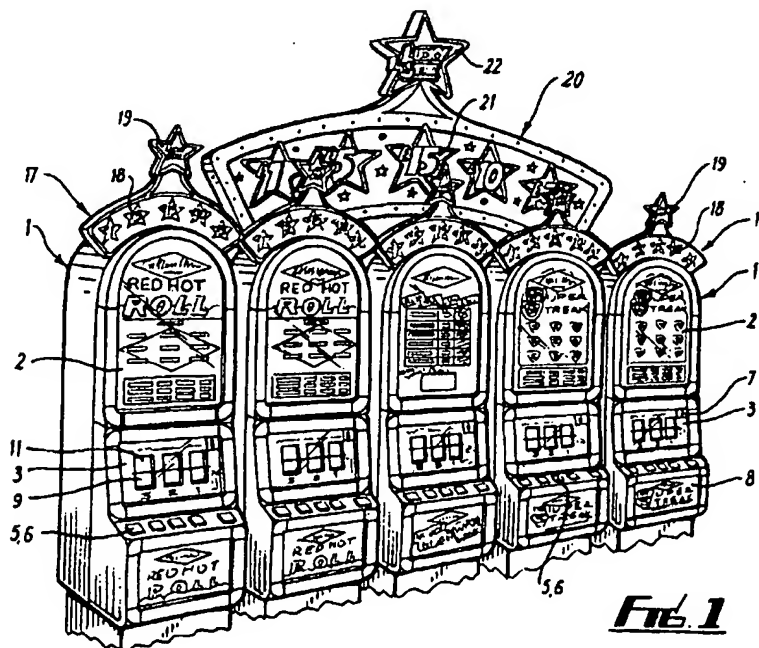
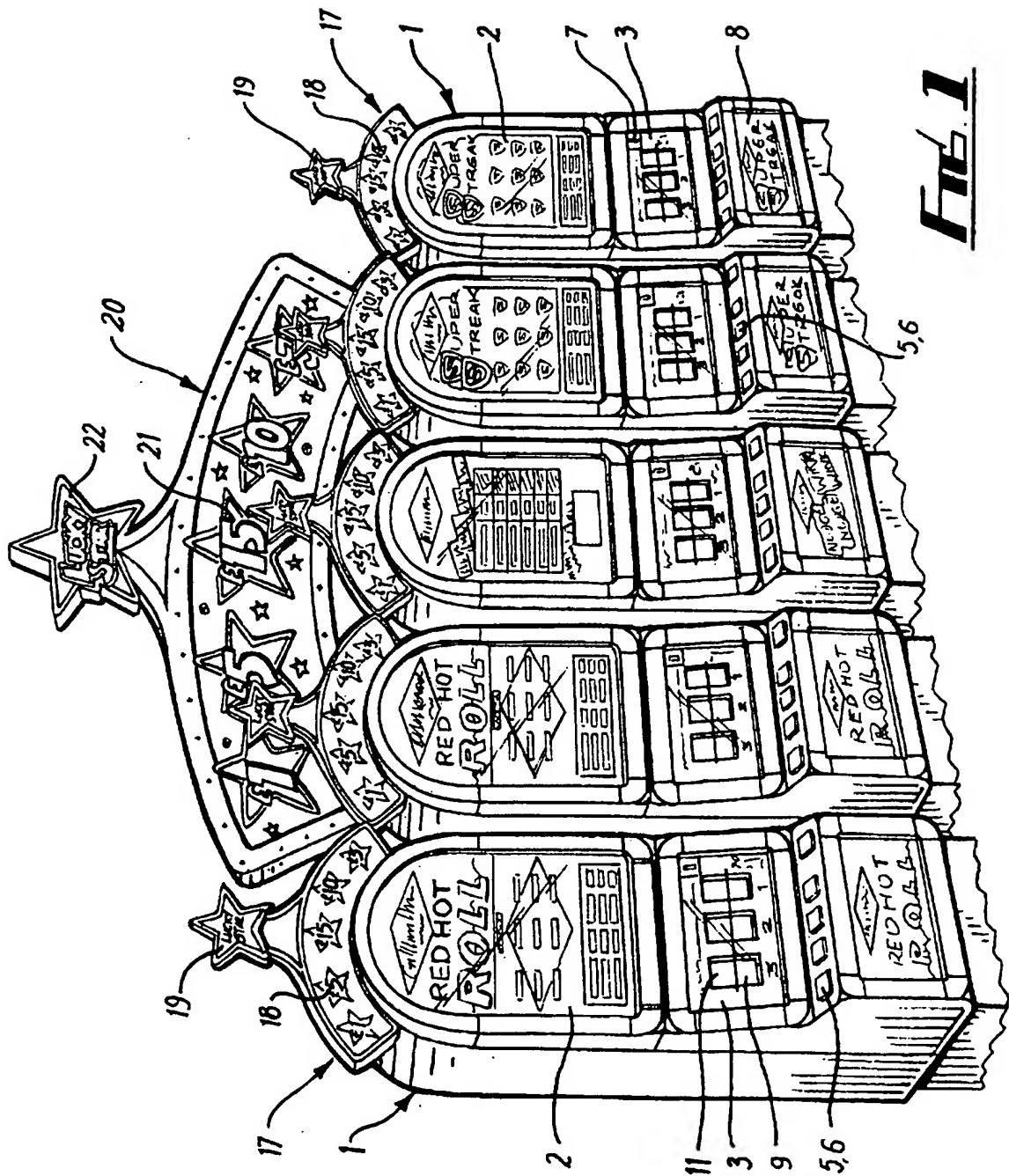


FIG. 1

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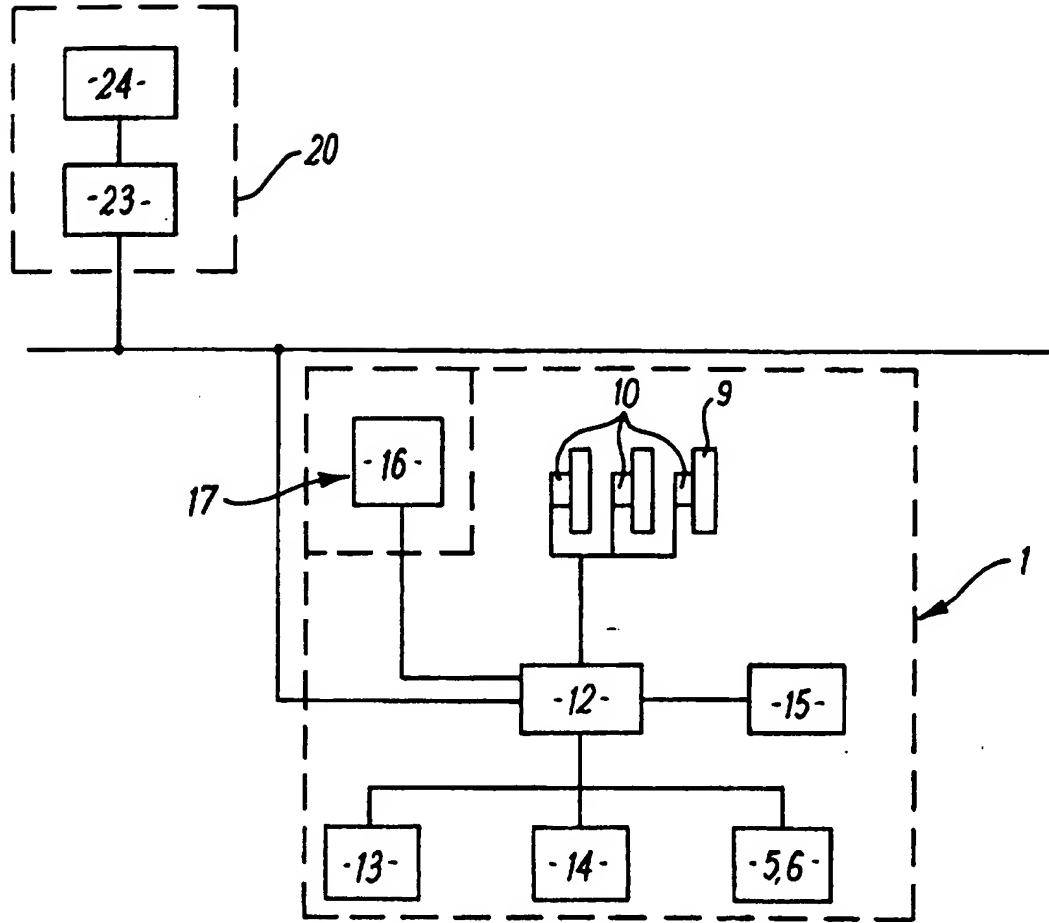


FIG. 2

ENTERTAINMENT MACHINES

This invention relates to player-operable entertainment machines.

The invention is more particularly, although not exclusively concerned with coin-operated entertainment machines of the 'fruit' machine or 'poker' machine kind having a main display device for displaying a selected combination of symbols at a win zone. A game is played resulting in selection of the displayed combination of symbols, and an award is made available to the player in the event that the combination is of a predetermined winning nature.

As used herein, the term coin-operated is intended also to cover operation by tokens, charge or credit cards or any other means of supplying credit or monetary value.

Known fruit machines are usually operated independently whereby the range of available awards is limited by the operational parameters, for example the pay-out ratio, of a particular machine. However, there are circumstances, such as in casinos, where machines are operated at adjoining or close locations and this gives rise to possibilities for interrelationship between individual machines and consequent enhanced ranges of awards, such as linked jackpots or shared features or feature systems.

In GB 2322217A there is disclosed a games system comprising a plurality of machines linked to a common display device, each machine

being operable to play a game, and an award being made available at one or more of the machines in dependence on a display attained on the display device.

In one embodiment, as specifically described in GB 2322217A, play
5 can transfer from an individual machine to the common display device to give an enhanced or further win opportunity, such opportunity then being denied to the other machines.

In a second embodiment play can also transfer from an individual machine to the common display device but the resulting enhanced or further
10 win opportunity can then proceed for the shared benefit of all machines.

This known common display device may comprise a random selector, such as rotatable reels, and may be used to provide a linked jackpot opportunity.

With this prior game system there is a necessary operational
15 interdependency between the individual machines. Whilst this can result in an advantageous and desirable games system having considerable player appeal, there may be circumstances in which such an interdependency is not desirable, or is impermissible.

An object of the present invention is to provide a multi-machine
20 games system which has a player-appealing common display but which does not require operational interdependency of the machines.

According to the invention therefore there is provided a games

system comprising a plurality of machines linked to a common display device, each machine having a games feature providing an enhanced or further win opportunity and being operable, on attainment of such an opportunity to provide an indication of this on the common display device,
5 characterised in that the said games features of the machines operate independently of each other.

With this arrangement, the games system can have appreciable player appeal derived from a common display but without requiring interdependency of the individual machines.

10 For example, the system can give the impression of being a 'linked jackpot' system without having any such linking between the machines.

The win opportunity provided by the games feature may be a guaranteed win of a fixed or variable value. Thus, the games feature may involve selection of a fixed bonus award which is automatically made
15 available to the player, or it may involve selection from a range of awards, such selection occurring on an automatic basis or by operation of a player control.

Alternatively the win opportunity provided by the games feature may comprise a further or supplementary game play initiated automatically or by
20 operation of a player control, and which need not necessarily result in a win. Where a win is not guaranteed, the outcome may be enhanced in terms of a greater win likelihood or higher award levels or otherwise.

The nature of the common display device and of the indication on this will depend on the nature of the win opportunity and thus for example may comprise a single symbol or combination of symbols or the like.

Conveniently, the common display device may comprise a transparent
5 or translucent display panel having one or more sections which can be selectively back illuminated to effect display of one or more different symbols such as prize values or the like. Other means of selectively displaying symbols may also be used.

Most preferably each individual machine has a local display device
10 which can also provide an indication of the attained said enhanced or further win opportunity. This local device may be of the same or similar form to the common display device, for example being a smaller version of the common display device. Alternatively, the local device may be of different form.

15 In one embodiment the local display device is an arcuate back illuminated panel mounted on top of the machine, and the common display device is a similar but larger arcuate back illuminated panel which straddles the tops of at least some of the machines.

The local device may operate in like manner and in synchronism with
20 the common display device. Thus, the devices may have sections which can be selectively back illuminated for example in a progressive manner and/or intermittently by switching on and off and this progressive and/or

intermittent illumination may occur in synchronism between the respective devices. Alternatively the modes of operation of the different devices may differ from each other.

5 The games feature may be of any suitable kind and may occur on any suitable basis. most preferably the games feature relates to a jackpot or other 'special' feature giving an enhanced win opportunity, preferably on an irregular random or pseudo random basis.

10 Where the individual machines operate on a target win (e.g. target award payout) percentage, each machine may be set for the same overall percentage with the same contribution of the games feature. Alternatively, provision may be made for setting the machines to different overall percentages and/or different games-feature contributions. This may be settable at the machines and/or may be settable on or selectable by the common display device.

15 In the event that the games feature is selected for two or more machines simultaneously the arrangement is preferably such that only one of the machines produces the indication on the common display device, and the second machine may only produce the indication on the aforesaid local display device.

20 Accordingly, the common display device may incorporate an appropriate control to block operation by any other than the first machine.

Each machine is preferably a coin-operated machine of the 'fruit' or

'poker' kind as described above. In particular, the machine may be of the kind having multiple side-by-side reels rotatable about a common horizontal axis within a housing behind a window at the win zone, each reel having symbols at equally spaced or other positions around its periphery and the reels being arranged to be rotated and then brought to rest with one or more symbols on each reel displayed through the window for example on a win line. Each machine may have manual controls such as 'hold', 'nudge', 'gamble' and the like for player intervention in a game, and each machine may have a supplementary display or 'games feature' which can be used to enhance the entertainment value of the machine and provide additional or alternative opportunities for winning through the playing of a supplementary game.

It is however to be understood that the invention is not restricted to reel-type fruit machines as described above. The machines may use simulated reels (video displays) or other random or pseudo-random symbol selecting devices, and indeed the machines may be of any suitable AWP (amusement with prizes), gaming, SWP (skill with prizes) or other kind.

The individual machines may be located side by side in a row as floor-standing housed machines, and the common display device may be mounted as a separate unit, on top of or adjacent to the machines with appropriate connections therebetween.

Any other suitable arrangement may also be used, and thus the

display device may be connected to all, or only selected ones of any suitable number and arrangement of machines whether or not close to each other or to the display device.

With regard to the awards made available with the invention, these
5 may be of any suitable kind and thus may comprise payout of cash, tokens or other credit, or free games or prizes or scores or any other suitable award.

The invention will now be described further by way of example only and with reference to the accompanying drawings in which:-

10 Figure 1 is a diagrammatic front view of machines connected to a common display device in accordance with one embodiment of the invention; and

Figure 2 is a block circuit diagram illustrating a typical control arrangement for the embodiments of Figure 1.

15 Referring to the drawings, these show multiple side by side fruit machines each having a floor-standing box-shaped housing 1 having a front wall which includes upper and lower glass panels 2, 3, a number of player operating buttons 5, 6, a coin slot 7 and a payout opening 8.

Within the housing 1 there are three axially aligned reels 9 having say
20 symbols at regularly spaced positions around their peripheries. The reels 9 are axially rotatable and are drivably connected to respective stepper motors 10. The reels 9 are arranged behind a window 11 defined by a

printed region of the lower glass panel 3. Each reel 9 can be arrested by the respective stepper motor 10 in any of 20 stepping positions in which one symbol is in precise registration with a horizontal win line in the centre of the window 11 and two further symbols are visible above and below the win line.

The stepper motors 10 are connected to a microprocessor-based control unit 12. This unit is also connected to a coin-mechanism 13, a payout mechanism 14, the buttons 5, 6 and lamp boxes 15, 16 (yet to be described).

In use, the player inserts coins into the coin mechanism 13 through the slot 7 sufficient to generate credit for one or more games, and the machine is actuated so that a game can now be played. The game commences after a start button 5 has been pressed and the reels 9 spin and then come to rest so as to select a combination of symbols displayed on the win line. The displayed symbol combination is assessed by the control unit 12 and a win indication is given in the event that the combination is of a predetermined winning nature.

The control buttons 5 can be used to perform 'hold' or 'nudge' functions, when made available to the player, so that the player can seek to influence the outcome of a game, in conventional manner.

The upper panel 2 is a transparent or translucent glass panel which has sections which can be back illuminated by one of the light boxes 15.

On top of the machine there is an arcuate box structure 17 having a front panel marked with five stars 18 containing different award values (say £1, £3, £5, £10, £15). The stars 18 can be back illuminated by lamps of the light box 16 disposed within the box structure 17, and there is a prominent permanently illuminated star structure 19 on top of the box structure 17.

As shown in Figure 1, the multiple side by side fruit machines are in fixed positions alongside each other and a housed display unit 20 is mounted in a fixed position above and on top of or behind the machines centrally of the row thereof so that it can be readily seen by a player operating any of the individual machines.

The display unit 20 is a larger version of the box structure 17 on each machine and has a front panel with stars 21 which can be back illuminated, and a top star structure 22. The unit 20 contains a control unit 23 connected to lamps 24 within the unit 20 and to the control units 12 of the individual machines.

On a random or pseudo random basis, as determined by the control unit 12 of each machine, in play of a game, a special games feature is implemented whereby the player is awarded an enhanced win opportunity with a possible award value equal to one of the awards marked on the five stars 18 on the machine display device 17, which same awards are also marked in the same order on the stars 21 of the common display device 20.

When this feature is implemented for one of the machines, which is determined exclusively by the control unit 12 of the machine independently of the other machines, the display device 17 of that machine is actuated, by the machine control unit 12, to effect back illumination of the star symbols 18.

At the same time, a signal fed from the control unit 12 of that machine to the control unit 23 of the common display device 20 initiates back illumination of the star symbols 21 of the common display device 20 in synchronism with the back illumination of the star symbols 18 of the machine display device 17.

The mode of back illumination of the symbols 18, 21 depends on the nature of the games feature. The symbols may flash individually at random, or in a predetermined sequence, or together, and this may be followed by steady illumination of one symbol selected automatically at random or on a predetermined basis, or based on the outcome of a preceding play routine, to indicate an award value which is then paid out or made available to the player.

Alternatively the symbols 18, 21 may flash rapidly in sequence and the player has to press a button to arrest the sequence and obtain an award corresponding to the illuminated symbols (in the manner of a 'gamble' feature), or the player may have to initiate a further play feature of any suitable kind to determine which, if any, of the awards on the symbols will

be made available.

After termination of the games feature the illumination of the common display device 20 and the machine display device 17 is switched off.

As mentioned, initiation of the games feature is determined by the control unit 12 of each machine independently. There is therefore the possibility that two or more machines may initiate the games feature simultaneously. In this case the games feature proceeds on each of these machines independently, with appropriate illumination of the respective machine display devices 17, but the common display device 20 operates in synchronism with only one of the machines.

This may be achieved in any suitable manner. For example, the control unit 23 of the common display device 20 may respond to an input from the first machine on which the games feature is initiated, and input signals from other machines may then be blocked.

Alternatively, on receiving a first signal, the control unit 23 of the common display device 20 may then communicate with the control units 12 of the other machines to prevent signals being sent from the other machines.

With the arrangement described above, appreciable player appeal can be derived from the prominent display on the common display device 20 acting in synchronism with the local display device 17 of one of the machines indicating to anyone in the vicinity that a special or bonus award

has been made available to a fortunate player.

The projecting stars 19, 22 are permanently illuminated to signal the special nature of the machines.

5 The arrangement therefore has a similar visual effect to a conventional casino linked jackpot system.

However, in all cases, the machines operate wholly independently of each other and, in particular, the win likelihood (percentage stake return) for each machine is determined wholly by the setting and operation of that machine and is not affected by the other machines or the connection to the
10 common display device 20.

In accordance with conventional practice, the machines will be pre-set for a target pay-out percentage taking into account normal play and the special games feature. The overall percentage may be the same for each machine, but not necessarily the same distribution between normal play and
15 special games feature for the different machines.

It is usual to provide for adjustment of pay-out percentage by means of a variable control which adjusts an electrical parameter for the machines control unit 12. For the sake of convenience, this control may be provided, in a secure manner within the common display device 20. There may be a
20 single control which adjusts all machines, or a respective control for each machine.

It is of course to be understood that the invention is not intended to

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be restricted to the details of the above embodiment which are described
by way of example only.

CLAIMS

1. A games system comprising a plurality of machines linked to a common display device, each machine having a games feature providing an enhanced or further win opportunity and being operable,
5 on attainment of such an opportunity to provide an indication of this on the common display device, characterised in that the said games features of the machines operate independently of each other.
2. A games system according to claim 1 characterised in that the win opportunity is a guaranteed win.
- 10 3. A games system according to claim 1 characterised in that the win opportunity comprises a further or supplementary game play.
4. A games system according to any one of claims 1 to 3 characterised in that the common display device comprises a display panel having one or more sections which can be selectively back illuminated to
15 effect display of one or more different symbols.
5. A games system according to any one of claims 1 to 4 characterised in that each machine has a local display device to provide an indication of the attained said enhanced or further win opportunity.
6. A games system according to claim 5 characterised in that the local
20 display device comprises a back illuminated display panel.
7. A games system according to claims 4 and 6 characterised in that the local display device is an arcuate back illuminated panel mounted

on top of the machine and the common display device is a larger arcuate back illuminated panel which straddles tops of at least some of the machines.

- 5 8. A games system according to any one of claims 5 to 7 characterised in that the local device operates in like manner and in synchronism with the common display device.
9. A games system according to any one of claims 1 to 8 characterised in that the games feature relates to a jackpot feature.
- 10 10. A games system according to any one of claims 1 to 9 characterised in that each machine is set for a common overall win percentage with the same contribution of the games feature.
- 15 11. A games system according to any one of claims 1 to 10 characterised in that after an indication is produced on the common display device by a first said machine, the production of an indication on the device by any further said machine is blocked.
12. A games system according to any one of claims 1 to 11 characterised in that each machine is a coin-operated player-operable entertainment machine having a main display device for displaying a selected combination of symbols at a win zone.
- 20 13. A games system according to any one of claims 1 to 12 characterised in that the machines are located side by side in a row as floor-standing housed machines and the common display device

is mounted as a separate unit with connections between the unit and the machines.

14. A games system according to claim 1 substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

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Claims searched: All

Examiner: Michael Logan
Date of search: 29 September 2000

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.R): G4V (VAA)

Int CI (Ed.7): G07F 17/32, 17/34

Other: Online: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X,P	EP 0981119 A2 (WMS GAMING) see especially page 3, line 53 - page 4, line 13	1,3,5,8, 10-13
X	WO 96/23286 A1 (NSM) see fig 1	1,3,5,8
X	US 5292127 (LAZER-TRON) see column 3, lines 4-6	1,9
X	US 4837728 (IGT) see fig 1	1,3,4,9, 10,12

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.